

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1           1.       (Original) A method for use in communications involving a first terminal that is  
2 coupled to one side of a firewall and network address translator, the method comprising:  
3               sending, by the first terminal, a message identifying the first terminal to a node on  
4 another side of the firewall and network address translator;  
5               receiving, by the first terminal, another message from the node, wherein the  
6 messages between the first terminal and the node causes creation of a path through the firewall  
7 and network address translator; and  
8               repeatedly sending keep-alive messages to maintain the path through the firewall  
9 and network address translator.

1           2.       (Original) The method of claim 1, further comprising receiving a call request, by  
2 the first terminal, from the node over the path maintained through the firewall and network  
3 address translator.

1           3.       (Original) The method of claim 1, wherein repeatedly sending the keep-alive  
2 messages is based on a timer in the first terminal.

1           4.       (Original) The method of claim 1, wherein sending the identifying message  
2 comprises sending a registration message to register the first terminal with the node.

1           5.       (Original) The method of claim 4, wherein sending the registration message  
2 comprises sending a Session Initiation Protocol REGISTER message.

1           6.       (Original) The method of claim 5, wherein sending the registration message  
2 comprises sending the registration message to a Session Initiation Protocol proxy, the node  
3 comprising the Session Initiation Protocol proxy.

1           7.       (Original) The method of claim 1, further comprising exchanging messages, by  
2 the first terminal, with the node over the path maintained through the firewall and network  
3 address translator to establish a call session.

1           8. – 24. (Cancelled)

1           25.     (Original) A device capable of being used in communications through a firewall  
2 and network address translator, the device comprising:  
3                   an interface adapted to exchange messages with a node on another side of the  
4 firewall and network address translator, the exchange of messages with the node to create a path  
5 through the firewall and network address translator; and  
6                   a controller adapted to repeatedly send keep-alive messages to maintain the path  
7 through the firewall and network address translator.

1           26.     (Original) The device of claim 25, further comprising a timer to determine timing  
2 of the keep-alive messages.

1           27. – 29. (Cancelled)

1           30.     (New) The method of claim 1, wherein sending the message and receiving the  
2 message are used to perform registration of the first terminal, and  
3                   wherein repeatedly sending the keep-alive messages to maintain the path through  
4 the firewall and network address translator is performed for a duration of the registration of the  
5 first terminal.

1           31.     (New) The method of claim 1, wherein maintaining the path through the firewall  
2 and network address translator comprises maintaining a signaling path between the first terminal  
3 and the node through the firewall and network address translator.

1           32.     (New) The method of claim 31, wherein maintaining the signaling path  
2 comprises maintaining a Session Initiation Protocol (SIP) signaling path through the firewall and  
3 network address translator.

1           33.     (New) The method of claim 1, wherein repeatedly sending the keep-alive  
2 messages to maintain the path through the firewall and network address translator causes a  
3 mapping table to be maintained by the firewall and network address translator, the mapping table  
4 containing a mapping between an internal address of the first terminal and an external address of  
5 the first terminal.

1           34.     (New) The method of claim 33, wherein timing of repeatedly sending the  
2 keep-alive messages is controlled by a timer, and wherein repeatedly sending the keep-alive  
3 messages is performed at a periodic interval sufficient to prevent closing of the mapping caused  
4 by time-out in the firewall and network address translator.

1           35.     (New) The device of claim 25, wherein the interface is adapted to exchange  
2 messages with the node to perform registration of the device, and  
3                   the controller repeatedly sends keep-alive messages to maintain the path through  
4 the firewall and network address translator for a duration of the registration of the device.

1           36.     (New) The device of claim 25, wherein the controller repeatedly sends keep-alive  
2 messages to maintain a signaling path through the firewall and network address translator  
3 between the device and node.

1           37.     (New) The device of claim 36, wherein the signaling path comprises a Session  
2 Initiation Protocol (SIP) signaling path through the firewall and network address translator  
3 between the device and node.

1           38.     (New) The device of claim 25, wherein the controller repeatedly sending  
2 keep-alive messages to maintain the path through the firewall and network address translator  
3 causes a mapping table to be maintained by the firewall and network address translator, the  
4 mapping table containing a mapping between an internal address of the device and an external  
5 address of the device.

1           39.     (New) The device of claim 38, further comprising a timer to determine timing of  
2 the keep-alive messages, wherein the timer causes the keep-alive messages to be sent at a  
3 periodic interval sufficient to prevent closing of the mapping caused by a time-out in the firewall  
4 and network address translator.